

Remarks

This is in response to the Office Action mailed September 12, 2003. The specification and Figures 1 and 10 have been editorially amended. Claims 1-11, 13-15, and 17-20 have been canceled without prejudice or disclaimer. Independent claims 12 and 16 have been amended, as noted below, and remain pending. No new matter has been added. Reconsideration and allowance are respectfully requested.

I. Drawing Objections

In section 1 of the Office Action, the drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) because the drawings did not include reference signs 110, 210, 214, 891, and 892 mentioned in the description. Included at the Appendix are 2 replacement sheets with Figures 1 and 6-10. Reference sign 110 has been added to Figure 1, and reference signs 891 and 892 have been added to Figure 10. In addition, the specification has been amended to remove reference to reference signs 210 and 214. Removal of the objection is therefore respectfully requested.

II. Claim Rejections - 35 U.S.C. § 102

In section 3 of the Office Action, claims 1-7 and 16 were rejected under 35 U.S.C. § 102(b) as being anticipated by Tetzner, DE 86 31 526.9. In section 4, claims 1-4, 6-11, 16, and 17 were rejected as being anticipated by Greaves, U.S. Patent No. 2,450,790. In section 5, claims 1-4, 6-11, 16, and 17 were rejected as being anticipated by De Gouville, U.S. Patent No. 3,825,404. In section 6, claims 1-4, 6, 7, and 16 were rejected as being anticipated by Guth, U.S. Patent No. 3,923,448. In section 7, claims 1-3, 6, and 16 were rejected as being anticipated by Jeppesen, U.S. Patent No. 5,213,494. In section 8, claims 1-7 and 16 were rejected as being anticipated by Beam, U.S. Patent No. 1,818,783. All of these rejections are respectfully traversed, and the correctness of these rejections is not conceded.

However, in the interest of moving the prosecution of this application forward, claims 1-11 and 17 have been canceled without prejudice or disclaimer as to their future prosecution.

Claim 16 has been amended to include limitations similar to those noted below with respect to claim 12 and should therefore be allowable for at least the same reasons.

Reconsideration and removal of the rejections stated in sections 3-8 of the Action are therefore respectfully requested.

III. Claim Rejections - 35 U.S.C. § 103

In section 10 of the Office Action, claims 12-15 and 18-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Butler et al., U.S. Patent No. 6,053,165, in view of De Gouville. This rejection is respectfully traversed.

Preliminarily, it is noted that claims 13-15 and 18-20 have been canceled without prejudice or disclaimer as to their future prosecution.

Claim 12 has been amended to incorporate subject matter from canceled claims 13-15. Specifically, claim 12 is directed to a gas fireplace including, among other limitations, a burner assembly and a mixture fitting. Claim 12 recites that the burner assembly includes an air shutter coupled to a burner tube, the air shutter defines an air aperture configured to deliver secondary air to a combustible gas and air mixture. Claim 12 further recites that the mixture fitting defines a gas passage and an air orifice extending from a first end at an outer surface of the mixture fitting to a second end at the gas passage, and that the air orifice is oriented at an angle in a direction of a flow of the combustible gas within the gas passage such that the first end is positioned upstream of the flow of the combustible gas with respect to the second end of the air orifice.

One non-limiting example of such a configuration as recited by claim 12 is illustrated in Figures 3 and 10 of the present application. Notably, as air orifices 880 and 881 of example mixture fitting 810 of Figure 10 extend from an exposed surface 866 through to the gas passage 870, the air orifices 880 and 881 are oriented at an angle in a direction of the flow of combustible gas through the gas passage 870. In this configuration, the end of each orifice 880 and 881 located at the exposed surface 866 of the mixture fitting 810 is positioned upstream with respect to the end of each orifice 880 and 881 positioned at the gas passage 870.

Orienting the air orifices of the mixture fitting at an angle with respect to the flow of combustible gas is advantageous to allow the air flowing into the gas passage from the air orifices to be introduced adjacent an outer diameter of the gas passage, thereby mixing the boundary layer with air to reduce its effects. Application, page 8, lines 4-8 and page 11, lines 2-4.

@ 90° In contrast, neither Butler nor De Gouville, alone or in combination, suggest such a configuration as recited by claim 12. For example, in De Gouville, the orifices 11 are apparently oriented perpendicular with respect to the flow of gas through the gas passage, rather than being oriented at an angle in a direction of a flow of the combustible gas within the gas passage such that the first end is positioned upstream of the flow of the combustible gas with respect to the second end of the air orifice, as recited by claim 12. See De Gouville, Figures 1-3.

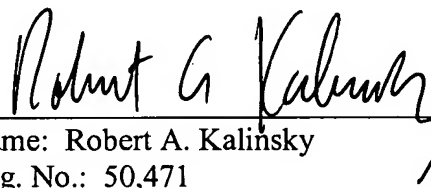
Further, none of the other cited art suggestions a combination of an air shutter and a mixture fitting configured as recited by claim 12. For at least these reasons, reconsideration and allowance of claim 12 are respectfully requested.

IV. Conclusion

Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. Please contact the undersigned attorney with any questions regarding this application.

Respectfully submitted,
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Attachment:

An Appendix with 2 replacement sheets including Figure 1 and 6-10